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Information on LTF publications, audio-visuals, the LTF Color Chart, Sensitivity Guide, and LTF instruments, can be obtained from the Lithographic Technical Foundation, 131 East 39th Street, New York 16, N.Y.

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LITHOGRAPHIC ABSTRACTS, APRIL 1961

PHOTOGRAPHY, TONE & COLOR CORRECTION

655.302

MULTIMASK A NEW STANDARDIZED COLOR MASKING FILM AND PROCESS. Ford P. Ray. (An address given at the Convention of the American Photoengravers Association at Buffalo, October 1960.) The Photoengravers Bulletin 50, No. 4, November 1960, pp. 69-76 (8 pages). Multimask film is a variation of negative color film designed to function solely as a color masking medium for the photomechanical color reproduction field. After a thorough tryout in Europe, it is being introduced in the U. S. The material and its use are described in detail. 4 Diagrams.

655.302

CONTINUOUS-TONE SEPARATIONS FROM POSITIVE TRANSPARENCIES. David Dornberg. ANPA Research Institute Inc. - Mechanical Bulletin #724, August 23, 1960, pp. 127-129 (3 pages). Comparison is made between negative and positive color for newspaper use. An advantage of negative color is simplicity (if all in balance). A disadvantage is the difficulty of judging the negative. Positive color has advantages in versatility of control as any lack of color balance is apparent. Also an editor can judge a positive transparency. Bad features are: 1. Complexity makes it time-consuming. 2. Registration problems. A typical job is carried step-by-step from transparency through to separations in 35 minutes.

655.322

SIMPLIFIED OFFSET COLOR. Peter Jowise. Photo Methods For Industry - Section Two - November 1960, pp. 20-23, 43, 50 (6 pages). The inexpensive, short run, three color system was developed at Kodak Research Laboratories for use in small circulation technical reports. Standardization of procedure and sizes, and use of a pin register system are part of the system. A step-by-step procedure for carrying out the system is given accompanied by a schematic diagram. 6 Illustrations.

655.86 : 655.322

MAP PRODUCTION BY LITHOGRAPHY AIDED BY THE USE OF PERCENTAGE SCREENS. The Litho-Printer 3, No. 11, November 1960, pp. 605-608 (4 pages). A map is shown in which shaded areas are prepared with the aid of a hexagonal color chart which shows the effect obtained with one, two or three tint combinations, each in a series of values from 0% to 100%. 1 Map in Color and 8 Diagrams. (Author - J. S. A. Schroder)

771.534

*THE UNII ALL-PURPOSE DENSITOMETER FOR THE PRINTING INDUSTRY. E. S. Karpenko. Poligraf. Proizvodstvo, June 1959, pages 9-11; Monthly Abstract Bulletin, Vol. 47, No. 1, January 1961, page 52. A description is given of a transmission-reflection densitometer based on the comparison of the working light beam with a standard beam by a null-point method. It is intended for general use in the Soviet printing industry.

655.302

ELECTRONIC TECHNIQUES FOR ANALYZING COLOR SEPARATION ERRORS. John S. Rydz. TAGA Proceedings - 11th Annual Meeting, June 1959, pp. 243-252, 281, 282 (12 pages). An ideal color separation process is one which would provide an exact colorimetric match of the original scene. Thus, if X Y Z represent the tristimulus values of an original scene and X^1 Y^1 Z^1 represent the tristimulus values of the separations then exact reproduction implies that:

$$1)\ X^1 = X,\ Y^1 = Y,\ Z^1 = Z$$

It has been shown that a satisfactory reproduction will be achieved if the tristimulus values of the reproduction are linear transformations of the tristimulus values of the original scene, that is,

$$2)\ X^1 = kX,\ Y^1 = kY,\ Z^1 = kZ$$

Errors which are introduced by the filter-emulsion-illumination system can be predicted if the transformation coefficients can be determined. This paper presents a technique for determining the errors introduced through the tri color-filter system. The technique utilizes analogue computer techniques. Transmission values of color samples obtained from the photographic separations are introduced into an analogue computer solving the Neugebauer equations. Resulting tristimulus values can then be determined in a matter of a few seconds for each color area throughout the color gamut. This paper will present the results of applying computer techniques to the analysis of errors for representative tristimulus filter systems now being utilized for color reproduction. In particular, errors introduced through A, B, and C_5 filters will be compared with a system incorporating K, N, and C_4 filters. 8 References, 3 Charts, 2 Tables.

655.322

EMPIRICAL DETERMINATION OF COLOR ERROR. Warren L. Rhodes; Irving Pobboravsky, and Richard N. Norman. TAGA Proceedings - 11th Annual Meeting, June 1959, pp. 233-239, 280, 281 (9 pages). Observation of hue, saturation and lightness errors in three color lithographic prints made in such a way that the densities of a gray scale are accurately reproduced and that non-selective grays in the original are approximately neutral in the reproduction. 11 References, 7 Charts, 2 Tables.

655.302

PHOTOGRAPHIC USES OF NEGATIVE COLOR MATERIALS. J. W. Gosling. TAGA Proceedings - 11th Annual Meeting, June 1959, pp. 203-211, 275-276 (11 pages). Photomechanical color reproductions can be achieved in several ways using negative color materials. The method of making direct halftone positives is the shortest but has several disadvantages. The technique of reproduction from a continuous-tone color print made from the color negative is well known and requires little explanation. The method of making continuous-tone separation positives and halftone negatives has had little application outside of the ROP newspaper field. The extension of this technique using two-stage masks is described here in some detail. For those workers who prefer to screen negatives to halftone positives, some workable techniques are outlined. 1 Reference, 3 Diagrams.

655.319

ANALYSIS OF ROP COLOR BASED ON EQUIVALENT NEUTRAL DENSITY CONSIDERATIONS. J. Todd McLane. TAGA Proceedings - 11th Annual Meeting, June 1959, pp. 191-202,273,274 (14 pages). One of the initial requirements of any color reproduction system is that it reproduce the neutral scale. The knowledge of the requirements for this type of reproduction is desirous, especially in view of the increasing demands for color reproduction systems that reduce, or even eliminate, manual color correction. This paper describes an equivalent neutral density (END) analysis as applied to high-speed letterpress printing using newsprint and the ANPA-AAAA recommended colors. 7 Charts, 1 Table.

PLANOGRAPHIC PRINTING PROCESSES

655.325

*STABILIZATION OF PRINTING AREAS OF (ALUMINIUM) OFFSET PLATES WITH THE AID OF CHEMICAL COPPERING. Anon. Poligraf. Proizvodstvo (In Russian); Form und Technik., Vol. 11, No. 6, June 1960, p. 292 (In German); Printing Abstracts 15, No. 10, Oct. 1960, p. 619. A process has been developed by N. W. Stavinsky of the Kiev Printing Institute.

A considerable increase in the resistance of the printing areas to chemical or mechanical wear is achieved by treatment with the solution used. Details of its composition are given.

655.325

DEEP-ETCHING AND COPPERIZING DEEP-ETCH ALUMINUM PLATES. Charles W. Latham. The Inland and American Printer and Lithographer 146, No. 2, November 1960, pp. 60, 61, 62, 63 (4 pages). A discussion of a number of aspects of copperized deep-etch platemaking. Some LTF recommended practices, such as Nicohol, are mentioned. 2 Illustrations.

655.324

LITHO PLATES. Albert R. Materazzi. (From an address presented at the 41st Annual Craftsman Convention, Atlanta.) Modern Lithography 28, No. 11, November 1960, pp. 40-42, 139 (4 pages). The newest developments have been in the field of "Wipe-On" plates. Their advantages are given and sources listed. Surface plates have been improved. (LTF mentioned) and the improvements in coatings, metals and processing are noted. Similarly the other types of plates such as deep-etch and bimetals are discussed.

655.324

PLATES FOR OFFSET LITHOGRAPHY. Albert R. Materazzi. The Graphic Arts Monthly 32, No. 11, November 1960, pp. 90,2,4,6,8, 100,4,6,8,10,12 (11 pages). A review of plate types with maker's names, sizes available and a thorough discussion of each.

655.326

SPONGES CAUSE SCUM. Eugene C. Bulinski. The Graphic Arts Monthly 32, No. 10, October 1960, pp. 126,128,130 (3 pages). In answer to a question, author discusses case where apparently use of new natural sponges in platemaking led to subsequent scumming of plates. Uncleaned new sponges give solution with pH 12. Cellulose sponges are preferred. Natural sponges should be soaked in mild acid before use.

PAPER AND INK

655.302 : 655.322

OFFSET INKS AND MOIRÉ PATTERN. E. A. Apps. The Litho-Printer 3, No. 11, November 1960, pp. 595,97,99,600 (4 pages). At a 30° screen angle no moiré is apparent. The fourth color causes the trouble. Normal practice is to put the weakest, the yellow, at 15° between two other colors. Bolder patterns are produced if dot spacings differ, the dots are misshapen, ink films are uneven, both colors are a middle tone. The placement of the yellow screen angle, variation of screen (133 for yellow with others 120), and other influencing factors are discussed.

676.27

SMOOTHNESS OF PAPERS. William H. Bureau. Graphic Arts Monthly 32, No. 11, November 1960, pp. 42, 44 (2 pages). Smoothness and gloss are explained. Smoothness, plus ink receptivity and cushion determine printing quality. Means of achieving smoothness in papermaking are discussed.

655.326

HOW TO GET BEST RESULTS FROM INK. Paul W. Greubel. Modern Lithography 28, No. 11, November 1960, pp. 58, 61 (2 pages). A discussion of the effects of some variables in the lithographic process on the performance of ink. Variables include plate etch and manner of application and application of asphaltum. Full data are given in two tables and an illustration of results.

676.27

USEFUL HINTS ON PAPER TESTING. Frederick T. Day. The Small Offset User 10, No. 109, November 1960, pp. 17, 19, 21 (3 pages). Some simple tests used to determine quality of paper without the aid of instruments are described. Tearing both ways can tell something of strength and fiber content. Other simple tests and what they reveal are described.

655.302 : 655.306

BALANCED INKS. Noel B. Pittman. (Based on data appearing in Impressions, house organ published for printers and lithographers by Sinclair and Valentine Co., 611 W. 129 St., New York.) American Ink Maker 38, No. 11, November 1960, p. 37 (1 page). A greatly simplified explanation of why inks with their color errors in proper relationship in the cyan and magenta simplify color correction by masking. 2 Illustrations.

655.329 : 655.326

WEB OFFSET INKS. Ludwig P. Horn. TAPPI 43, No. 7, July 1960, pp. 206A-207A (2 pages). These inks are discussed in two categories: non-heat-set, and heat-set. Author points out that they are different, are less complicated and troublesome, and misunderstood. Manufacture and use are described briefly.

655.306

GLOSS INKS. John Moody. TAPPI 43, No. 7, July 1960, pp. 207A-208A (2 pages). The subject is discussed from the standpoint of the printer. A number of the problems encountered (printing on super paper, strike through, set off, trapping, etc.) are discussed. Seven suggestions are offered, such as paper stock, makeready, avoiding cold ink, judging results after press running well, etc.

655.306

PAPER FOR GLOSS INK PRINTING. Joseph Abelson. TAPPI 43, No. 7, July 1960, pp. 209A-210A (2 pages). Print gloss depends on interrelation of ink, paper and printing conditions. Printing factors are pressures, speeds, ink film thickness, temperature and humidity. Paper factors are formation, surface smoothness, ink receptivity, caliper uniformity and density. Ink film thickness is important. Paper factors influencing ink receptivity are discussed.

655.306

SURFACE COATINGS WITH IMPROVED PRINTABILITY. John O'Donnell. TAPPI 43, No. 7, July 1960, pp. 210A-212A (3 pages). Printing quality factors in paper are surface strength, wet rub resistance, opacity, brightness, smoothness, and refractive index of coating pigment. How the paper coater controls these and other properties are discussed.

655.316

THE INFLUENCE OF PAPER SURFACE CHARACTERISTICS ON PRINTING INKS AND THEIR FORMULATION. Joseph Krause. TAPPI 43, No. 7, July 1960, pp. 213A-214A (2 pages). Factors upon which ink formulation depend are listed: method of printing, press and its speed and operation, drying, and end uses. Printability is related to smoothness, ink receptivity and surface bonding strength. These factors are discussed briefly, mostly in relation to letterpress printing.

676.27

A PROPOSED TEST FOR ABRASIVENESS OF PIGMENTS AND PAPER FILLERS. R. D. Fraik and F. C. Schmutz. TAPPI 43, No. 7, July 1960, pp. 230A-233A (4 pages). Wear of paper producing and converting equipment is receiving greater attention because of its economic importance. A significant factor related to wear of fourdrinier wires, printing plates, and trimmer blades is that of abrasion associated with paper loading

materials. Previous approaches to this problem have been for specific applications and a procedure capable of broad application in relating mill experience is needed. This paper proposes a method which may have such broad application. Data are presented covering six typical materials. In addition, some study of test variables is covered including the effect of alum. While further refinement and standardization is needed, the procedure has been useful. 2 References, 4 Illustrations, 5 Tables.

676.27

PAPER COMPRESSIBILITY AND RESILIENCY. William H. Bureau. The Graphic Arts Monthly 32, No. 10, October 1960, pp. 106,8,10, 12 (4 pages). These, along with ink receptivity, are part of "printability" of paper. Compression is discussed in relation to printing processes and pressures, fiber content, finish, moisture content, etc. The property called "cushion" is important in printing, although not easily evaluated.

655.306

PRINTABILITY AND WEARABILITY - A consideration of the factor of wearability in the general definition of printability. James M. Dugan. TAGA Proceedings - 11th Annual Meeting, June 1959, pp. 213-217,276,277 (7 pages). To have practical meaning, a concise definition of printability should include the factors associated with wearability. Too often, definitions of printability are postulated to describe how chemical and physical effects of paper and ink can be adjusted to give the very best quality in the first few copies off the press, disregarding the fact that these conditions may produce excessive wear and lead to much poorer quality during the later phases of the press run. In this paper, physical evidence, in the form of photomicrographs of damaged letterpress plates and gravure etchings, shows how long-run printing quality may be sacrificed to first-proof quality. This evidence seems to warrant introducing a wearability factor into any definition of printability. Problems of wearability impose no insurmountable obstacles in the press room. Measures are suggested whereby these effects of wearability may be recognized and eliminated.

LITHOGRAPHY - GENERAL

655.329

SOME BASIC FACTS ON WEB-OFFSET. Anon. Modern Lithography 28, No. 11, November 1960, pp. 32-34 (3 pages). (Reprinted from the new booklet " Miehle Web-Offset Perfecting Presses.") An explanation of the operation of a web offset press carried step-by-step through the press pointing out differences from the operation of a sheet fed press. Additional operations such as rubber plate imprinting, drying ovens, folding, scoring, cross perforating, etc. are pointed out. Advantages of web-offset, also some disadvantages are given. 4 Illustrations.

655.326

DEWEY & ALMY POLYFIBRON TWO-PIECE BLANKET. Anon. Modern Lithography 28, No. 11, November 1960, pp. 35, 136 (2 pages). Story on the introduction of this blanket. Six advantages are listed: 1. True image due to lack of blanket distortion, 2. Fidelity of ink transfer over a wide range of pressures, 3. Saves makeready time, 4. Needs no rest to recover original shape, 5. Plate life extended, 6. Replacement cost cut. Mounting of blanket is explained. 3 Illustrations.

655.328

DISCUSSING DAMPERS. A. Williamson. The Litho-Printer 3, No. 11, November 1960, pp. 576-578 (3 pages). A clean and efficient damping system is necessary for good litho printing. Early damping methods and problems are first discussed. Improvements mentioned in the conventional damping system include fungicides to protect covers from rot, nylon thread to sew damper cover ends, paper damper covers, and seamless stocking-like covers. These improvements have eased the machine minder's problems. Author

speculates on the possibility that the damperless system of small presses can be successfully applied to large presses.

655.329

AN EVALUATION OF WEB OFFSET PRINTING. H. A. Asten. The American Pressman 70, No. 11, November 1960, pp. 6,8,9,10 (4 pages). A description of the various arrangements possible in web offset presses. Explained are the blanket-to-blanket (in vertical or horizontal arrangement), and blanket-to-steel (in inline or common drum types). The offset units themselves are explained as they differ from sheet fed presses. Other points covered include the disadvantages of the fixed cut-off, the higher initial cost and greater speed and production. Folding on the press, no tail end fan out, no sheet transfer, lower cost of paper but higher waste (said to just about balance out) are mentioned. Quality of work is said to be equal to that of sheet fed.

655.83

THEY MAKE MILLIONS OF CANS. Bernard Gelman. Graphic Arts Monthly 32, No. 11, Nov. 1960, pp. 66,8,70,2,4,6,8 (7 pages). A story on the making of lithographed cans following the metal through the cutting, coating, lithographing and subsequent operations. Lithographing must be able to withstand the forming operations and last for years on the shelf. 8 Illustrations.

655.323 : 655.327

A MODERN ANSWER TO OFFSET PROVING. A.G.E. van der Tuuk. Modern Lithography 28, No. 11, November 1960, pp. 48, 137, 139 (3 pages). Explanation of the reason why offset proving has produced a skeptical attitude toward offset proof presses. The development of flatbed offset proving presses is mentioned. The newer types are available in sizes from 18 x 24 to 55 x 78 in. Improved details are described. 3 Illustrations.

655.307

FORCE-FEEDING IN INKING SYSTEMS. Anon. The Small Offset User 10, No. 109, November 1960, pp. 11, 13 (2 pages). Advantages are less ink for a job, better control, prevention of ink skinning. The use of an ink agitator to force feed the ink permits use of less ink in the fountain and avoids these troubles. 2 Diagrams

655.329

WEB OFFSET PRINTING. Bernard Green. TAPPI 43, No. 7, July 1960, pp. 203A-205A (3 pages). The biggest change in the past 10 to 15 years of printing has been to offset, in the near future web offset will be a part of this big change. Advances in presses, papers and inks are mentioned. Of approximately 1000 web offset presses in the U. S. approximately 750 are printing business forms, the rest commercial publishing and general printing. Cost of plates and short makeready are advantages in comparison with other web printing. Other advantages and some disadvantages are discussed.

655.326 : 655.329

A PAPERMAKER TAKES A LOOK AT THE WEB-FED OFFSET PRESS. M. M. Muntz. TAPPI 43, No. 7, July 1960, p. 205A (1 page). The roll stands, printing units and folder are described in terms of the paper tortures of which they are guilty. From this the author derives some paper requirements for web-offset printing.

655.32 : 655.89

LITHOGRAPHIC PRINTING OF ALUMINUM FOIL. James T. Trousdale. The Graphic Arts Monthly 32, No. 5, May 1960, pp. 80,2,4,6,90,2,4,7,8,100 (10 pages). After some initial difficulties, lithography is now second to none in printing on aluminum foil. Laminating and coating are a factor. Suggestions are given for the printing operation on such points as grain direction, feeding, inks, blankets, plates and drying.

655.329 : 655.7

BOOKS BY WEB OFFSET. Walter Kubilius. Book Production November 1960, p. 57 (1 page). Limitations on trim size and demand for long runs have held back web offset in the book field. Standardization of paper, size and folder set-up are one approach to overcoming these limitations. This reduces changeover to plates only. This reduces breakeven point from its former 25,000 to 50,000 level to 10,000 or less. Strong doubts remain about use of web offset on 3,000 to 5,000 runs.

655.05 : 655.32 : 655.329

THE OFFSET STORY. Edwin G. Schwenn. The Publishers' Auxiliary - A series of 15 articles appearing in this weekly publication in issues from November 26, 1960, through March 11, 1961. Material for the series was derived principally from information furnished by 102 publishers of 346 newspapers printed by offset. A reprint has been prepared by the publishers: The Publishers' Auxiliary, 210 S. Desplaines Street, Chicago 6, Illinois. The fifteen articles carried the following titles:
"Offset Printing 'Preferred' by Editors, Publishers of More Than 300 Newspapers";
"Survey Finds Labor Costs, Availability Big Reasons for Converting to Offset";
"Publishers Switch to Offset for Better Reproduction but Discover New Problems";
"Publishers Find Offset Less Expensive When They Compare Costs to Letterpress";
"Half of Publishers Started Offset Papers with $10,000 or Less Plant Investment";
"Half of Plants in Aux Survey Called for $11,000 to $100,000 Investment";
"Conversion Costs Can Be Confusing; Depends on Size, Type of Equipment";
"Publishers Find Page Preparation, Printing Cheaper by Offset Method";
"Survey Shows Average of 5 1/2 Backshop Employees Per Plant, 2 Per Newspaper";
"Many Factors Involved in Pay Scale Variations; Pressman Make the Most";
"Switch to Offset Brings More Job Printing to Many Newspaper Plants";
"Publishers Find Offset Builds Ad Linage and Improves Reproduction";
"More and Better Pictures by Offset Helps Newspapers Build Circulation";
"Publishers Develop Shortcuts for Offset Printing; Many Want Web-Offset Presses" and
"Hell for 6 Months, But Publisher Wouldn't Go Back to Letterpress".

GRAPHIC ARTS - GENERAL

655.312

THE DOW ETCH PROCESS - ITS APPLICATION AND FUTURE. A. B. Fry. (Talk before the convention of the American Photoengraving Association, Buffalo, October 1960.) The Photoengravers Bulletin 50, No. 4, November 1960, pp. 197-202 (6). The process now has over 700 licensees in the U.S. and Canada. Advantages and disadvantages with both magnesium and zinc are listed. Specific applications described include cylinders for printing paper cups, wrap around plates, R.R. time-table printing, newspaper work. A new one-bath process is mentioned.

655.07 : 655.312

PROGRESS IN PHOTOENGRAVING RESEARCH. Marvin C. Rogers. (Report given before the convention of the American Photoengravers Association, Buffalo, October 1960.) Photoengravers Bulletin 50, No. 4, November 1960, pp. 135-138 (4 pages). Over 3,000 tests in less than a year and a new etching additive formulation (Peri 13a) are announced. A new publications program and continued growth in membership are also cited.

655.314 : 655.318

OUR FIRST YEAR IN THE FIELD WITH "WRAP-AROUND." Charles E. Wortman. (A panel discussion at the Convention of the American Photoengravers Association, Buffalo, October 1960.) Photoengravers Bulletin 50, No. 4, November 1960, pp. 99-116 (18 pages). Some history on the development of the Harris press is given, including the need to go into platemaking to develop plates and a procedure for making them. Some comparative

figures are given on plate costs, makeready time and running time. Fourteen presses were in the field at the time with production of two a month. An extended question-answer period is recorded.

655.07

THE CHALLENGE OF THE FUTURE. Max B. E. Clarkson. (An address given at the Convention of the American Photoengravers Association at Buffalo, October 1960.) The Photoengravers Bulletin 50, No. 4, November 1960, pp. 13-23 (11 pages). Author points out the fact that new developments are having a profound effect on the make-up of the graphic arts and urges the photoengravers to take the lead rather than wait for printers to demand progress: "Either research and develop or be left behind - - -" These thoughts are supported with experiences from the authors' own business. Cooperation among various segments of the industry is urged.

655.02

JUST SUPPOSE A DISASTROUS FIRE STRIKES YOUR PLANT TONIGHT. Anon. The Inland and American Printer and Lithographer 146, No. 2, November 1960, pp. 64-66 (3 pages). Fire losses were $1 billion in property, 7,000 lives in 1958. Figures are given on printing's share of this loss. An analysis shows special printing hazards. Fire protection factors so often missing include sprinklers and other fire protection apparatus, means of quick detection and reporting a fire. 3 Illustrations.

655.3

HOW TO IDENTIFY PRINTING. Axel Lundbye. Gravure 6, No. 11, November 1960, pp. 20-23, 107-109 (7 pages). Printing processes and plate materials are grouped into classes according to the visible character of the impression they make. These differences are brought out in sketches, diagrams and photomicrographs. 7 Illustrations.

655.84

SPECIAL OCCASIONS MEAN COMPLEX PRODUCTION SITUATIONS FOR THE GREETING CARD PRINTER. George Williams. Printing Production 91, No. 2, November 1960, pp. 36-38, 96, 97 (5 pages). Greeting card annual production is estimated at over 4 billion cards and $602 million. The production of the cards as done at one plant is outlined. The actual lithographing of the cards is mostly done by other lithographers. The complex finishing processes may include as many as five operations. Envelope production is on web fed equipment. 10 Illustrations.

655.255

ELECTRONIC COPY HOLDING GIVES NEW LOOK TO PROOFREADING TASK. Anon. Printing Production 91, No. 2, November 1960, p. 43 (1 page). Description of a new proofreading system developed at the University of Toronto Press. Proofreader reads copy into a tape recorder dictating machine, listens to playback while reading proof. Advantages in speed and accuracy are claimed. 1 Illustration.

655.28 : 655.321

FOTOSETTER - application to lithography. Richard M. Jones. Graphic Arts Monthly 32, No. 11, November 1960, pp. 80,2,4,7 (4 pages). Fotosetter composition provides sharpness of image, uniformity of color resulting in better plates in less time. Specific reasons are given. The variety of forms in which the output can be made, the operation of the Fotosetter, the freedom in layout, the simplified storage problems are discussed. Some 14 advantages to businessman and craftsman are listed.

655.307

PROPER DRYING ON PRESSES. Ben Offen. Graphic Arts Monthly 32, No. 11, November 1960, pp. 10-14, 16,18,20 (8 pages). A discussion of needs, problems and solutions to drying ink and coatings on web presses in gravure, letterpress, flexography and coatings.

Gravure inks require the evaporation of solvents and require plenty of air to avoid explosion hazard. Flexography has problems similar to gravure. Letterpress heat-set inks use high-boiling solvents, and other problems. Available types of dryers are described. 5 Illustrations.

655.1

NEW DEVELOPMENTS IN GRAPHIC ARTS. A. E. Sterner. TAPPI 43, No. 7, July 1960, pp. 214A-215A (2 pages). Growth and developments of the postwar years are pointed out, including: new equipment, phototypesetters, growth of offset, increased research, scanners and engravers, powderless etching, web offset, increased use of electronics, entry of large, non-graphic arts companies into the field, entry of colleges into training programs. Predictions include: more use of precoated litho plates, more use of scanners in color work, high speed letterpress rotaries, improved of eliminated dampeners on offset presses, improved pigments and faster setting in inks, better papers. Some far out predictions are ventured (or quoted from M. H. Bruno, Research Director of LTF).

655.332

PHOTOGRAVURE: THE WATTIER PROCESS. H. M. Cartwright. Process 67, No. 801, October 1960, pp. 330,331,332 (3 pages). This patented process produces recesses in which both depth and area vary, and with a longer tone range than the Dultgen process. It uses a single positive, has a method for: (1) Making acceptable screen positives in the camera, (2) A technique for printing onto carbon tissue allowing control over light-tone dots. The procedure is given step-by-step and commented upon in some detail. 2 Illustrations.

655.332

PHOTOGRAVURE: DR. KOTT'S PROCESS. H. M. Cartwright. Process 67, No. 802, November 1960, pp.366, 367, 373 (3 pages). The process is covered by U. S. Patent 2,628,903. Assigned to Publication Corp. A contact screen, duPont 'Rotafilm' and a dot image formed in resist material are part of this process. Exposures are made onto the Rotafilm through a continuous-tone positive with and without a contact screen. Details of the method are given. 3 References.

655.315

NEW BRITISH WRAP-AROUND PLATE. Anon. Printing Production 91, No. 1, October 1960, p. 59 (1 page). A brief description of a new wrap-around plate developed by Cambridge University Press. It was developed to make short run operation as practical as long runs, yet no wear shows after 100,000. The combination of a durable plastic printing surface backed by resilient rubber reduces makeready. 2 Illustrations.

655.7 : 655.28

WHAT TO EXPECT IN STARTING NEWSPAPER PHOTOCOMPOSITION. W. N. Kueneman. Printing Production 91, No. 1, October 1960, pp. 54-55 (2 pages). A report on experiences given by David K. Gottlieb, Business Manager of the Davenport (I.) Times and Democrat. Transitional steps described include a rented Varityper, trial pasteups, consideration and shelving the idea of metal paste-ups, preliminary instruction of Linofilm operators, costs, etc. Conclusions: Productivity will increase, better advertisements, better advertisers, and a better looking newspaper will result. 2 Illustrations.

655.332 : 655.336

THE EFFECT OF ROTOGRAVURE CELL DIMENSIONS ON PRINT QUALITY OF LINE WORK AND SOLIDS. Robert V. Hershey. TAGA Proceedings - 11th Annual Meeting, June 1959, pp. 219-226,277, 278 (10 pages). The rotogravure print quality of line work and solids is a function of the depth, bridge width, number of lines per inch, and general shape of the etched rotogravure cells. The ideal dimensions for these variables are dependent upon the stock being printed. A special printability cylinder was prepared containing ten different etches of a single piece of copy. This copy was selected to contain solids, fine type, and reverse type. Screens were selected and the etching controlled to produce a series of etches

in which one of the above mentioned variables was varied at a time. Seven stocks, ranging from non-absorbent to highly absorbent, were printed with the cylinder on a production press under production conditions. The printed samples were evaluated by pressmen, proofers, ink makers, engravers, quality control personnel, and research and development personnel on four points: ink lay, color density, fine type, and reverse type. The results of this evaluation are discussed and graphs are shown which visibly show the effect of cell dimensions on print quality. 8 Diagrams, 1 Table.